

Amendments to the Claims

Please amend Claims 1, 5, 9, 13, and 17. Please add new Claims 18-19. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently amended) A method of controlling a cryopump, the method comprising:
coupling a heater to a cryopumping surface of the cryopump; and
controlling the heater during operation of [[a]] the cryopump to maintain a
temperature of the cryopumping surface of the cryopump.
2. (Original) A method according to Claim 1 wherein the heater is controlled by feedback
from a temperature sensor.
3. (Original) A method according to Claim 2 further including shutting off the heater in
response to receiving feedback indicating a temperature outside of a normal range.
4. (Original) A method according to Claim 2 wherein the cryopumping surface further
includes first and second cryopumping surfaces, each cryopumping surface having a
heater.
5. (Currently amended) A method according to Claim 2 wherein the heater is [[heaters are]]
controlled proportionally by the feedback from the temperature sensor [[sensors]].
6. (Original) A method according to Claim 1 wherein the heater maintains a temperature of
a first stage of the cryopump.
7. (Original) A method according to Claim 6 wherein the temperature is maintained above
65K.

8. (Original) A method according to Claim 1 wherein the heater is an electric heater.
9. (Currently amended) A cryopump comprising:
 - a heater coupled to a cryopumping surface of the cryopump; and
 - an electronic controller which maintains a temperature of the cryopumping surface of the cryopump by controlling the heater during operation of [[a]] the cryopump.
10. (Original) A cryopump as in Claim 9 wherein the heater is controlled by feedback from one or more temperature sensors coupled to the cryopump.
11. (Original) A cryopump as in Claim 10 wherein the controller shuts off the heater when the temperature sensed by one or more of the temperature sensors is outside a normal temperature range.
12. (Original) A cryopump as in Claim 10 wherein the cryopumping surface further includes:
 - first and second cryopumping surfaces;
 - the first cryopumping surface having a heater; and
 - the second cryopumping surface having a heater.
13. (Currently amended) A cryopump as in Claim 9 wherein the heater is [[heaters are]] controlled proportionally by the feedback from the temperature sensor [[sensors]].
14. (Original) A cryopump as in Claim 9 wherein the heater maintains a temperature of a first stage of the cryopump.
15. (Original) A cryopump as in Claim 14 wherein the temperature is above 65K.
16. (Original) A cryopump as in Claim 9 wherein the heater is an electric heater.

17. (Currently amended) A system for controlling a cryopump comprising:
 - means for heating a cryopumping surface of the cryopump; and
 - means for controlling the heater during operation of ~~[[a]]~~ the cryopump to maintain a temperature of the cryopumping surface of the cryopump.
18. (New) A method of controlling a cryopump, the method comprising:
 - coupling a heater integrally to a cryopumping surface of the cryopump; and
 - controlling the heater during operation of the cryopump to maintain a temperature of the cryopumping surface of the cryopump.
19. (New) A cryopump comprising:
 - a heater coupled integrally to a cryopumping surface of the cryopump; and
 - an electronic controller which maintains a temperature of the cryopumping surface of the cryopump by controlling the heater during operation of the cryopump.